1   While the invention has been described in conjunction with specific
2   embodiments, it is evident that many alternatives, modifications, permutations and
3   variations will become apparent to those skilled in the art in light of the foregoing
4   description. Accordingly, it is intended that the present invention embrace all such
5   alternatives, modifications and variations as fall within the scope of the appended
6   claims.
7   What is claimed is:

1   1.   A PC card video recording device, comprising:

2   a PCMCIA compliant connector;

3   a decrypter that receives encrypted video data through the connector and

4   decrypts the video data into a video data stream;

5   a memory;

6   a processor; and

7   a filter, receiving the video data stream, and sending a portion of the video

8   data stream specified by the processor to the memory for storage.

9

10   2.   The apparatus according to claim 1, further comprising an encrypter that

11   receives data stored in the memory, encrypts the data and sends the data to the

12   connector, under control of the processor.

13

14   3.   The apparatus according to claim 1, further comprising a memory interface

15   receiving the video data stream from the filter that stores the data stream in the

16   memory.

17

18   4.   The apparatus according to claim 2, further comprising a memory interface

19   receiving the video data stream from the filter that stores the data stream in the

20   memory, and that retrieves the stored data from the memory and sends the

21   retrieved data to the encrypter.

22

23   5.   The apparatus according to claim 4, wherein the stored data is retrieved

24   according to a packet identifier associated with the stored data.

25

26   6.   The apparatus according to claim 4, further comprising a reference clock

27   that sends timing information to the memory interface for storage with the video

28   data stream.

29

7.   The apparatus according to claim 1, further comprising means for receiving a smart card, the smart card containing data used to generate a decryption key used by the decrypter.

8.   The apparatus according to claim 2, further comprising means for receiving a smart card, the smart card containing data used to generate a decryption key used by the decrypter and an encryption key used by the encrypter.

9.   The apparatus according to claim 1, further comprising an encrypter that encrypts the data stream prior to storage in the memory.

10.   The apparatus according to claim 2, further comprising a second encrypter that encrypts the data stream prior to storage in the memory, and a second decrypter that decrypts the data retrieved from memory prior to encrypting the data using the encrypter and sending the data to the connector.

11.   The apparatus according to claim 1, wherein the memory comprises solid state non-volatile memory.

12.   The apparatus according to claim 2, wherein the memory comprises solid state non-volatile memory.

1   13.   A PC card recording device, comprising:

2   a PCMCIA compliant connector;

3   a decrypter that receives encrypted data through the connector and decrypts

4 the data into a data stream;

5   a memory;

6   a processor; and

7   a filter, receiving the data stream, and sending a portion of the data stream

8 specified by the processor to the memory for storage.

9

10   14.   The apparatus according to claim 13, further comprising an encrypter that

11 receives data stored in the memory, encrypts the data and sends the data to the

12 connector, under control of the processor.

13

14   15.   The apparatus according to claim 13, further comprising a memory interface

15 receiving the data stream from the filter and that stores the data stream in the

16 memory.

17

18   16.   The apparatus according to claim 14, further comprising a memory interface

19 receiving the data stream from the filter and storing the data stream in the memory,

20 and that retrieves the stored data from the memory and sends the retrieved data to

21 the encrypter.

22

23   17.   The apparatus according to claim 16, wherein the stored data is stored and

24 retrieved according to a packet identifier associated with the stored data.

25

26   18.   The apparatus according to claim 15, further comprising a reference clock

27 that sends timing information to the memory interface for storage with the data

28 stream.

29

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19.   The apparatus according to claim 13, further comprising means for receiving a smart card, the smart card containing information used to generate a decryption key used by the decrypter.

20.   The apparatus according to claim 14, further comprising means for receiving a smart card, the smart card containing information used to generate a decryption key used by the decrypter and an encryption key used by the encrypter.

21.   The apparatus according to claim 13, further comprising an encrypter that encrypts the data stream prior to storage in the memory.

22.   The apparatus according to claim 14, further comprising a second encrypter that encrypts the data stream prior to storage in the memory, and a second decrypter that decrypts the data retrieved from memory prior to encrypting the data using the encrypter and sending the data to the connector.

23.   The apparatus according to claim 13, wherein the memory comprises solid state non-volatile memory.

24.   The apparatus according to claim 14, wherein the memory comprises solid state non-volatile memory.

1   25.   A PC card video recording and playback device, comprising:

2   a PCMCIA compliant connector;

3   a first decrypter that receives encrypted video data through the connector

4 and decrypts the video data into a video data stream;

5   a solid state non-volatile memory;

6   a memory interface;

7   a processor;

8   a filter, receiving the video data stream, and sending a portion of the video

9 data stream associated with a packet identifier specified by the processor to the

10 memory interface for storage in the memory;

11   a reference clock that sends timing information to the memory interface for

12 storage with the video data stream; and

13   a first encrypter that receives data stored in the memory according to a

14 packet identifier associated with the stored data from the memory interface,

15 encrypts the data and sends the data to the connector, under control of the

16 processor.

17

18   26.   The apparatus according to claim 25, further comprising means for receiving

19 a smart card, the smart card containing information used to generate a decryption

20 key used by the first decrypter and an encryption key used by the first encrypter.

21

22   27.   The apparatus according to claim 25, further comprising a second encrypter

23 that encrypts the data stream prior to storage in the memory.

24

25   28.   The apparatus according to claim 25, further comprising a second encrypter

26 that encrypts the data stream prior to storage in the memory, and a second

27 decrypter that decrypts the data retrieved from memory prior to encrypting the data

28 using the first encrypter and sending the data to the connector.

29

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1   29.   A method, carried out in a PC card recorder, of storing video programming

2   on the PC card recorder, comprising:

3   receiving an encrypted video data stream;

4   decrypting the encrypted video data stream to produce a video data stream;

5   filtering the video data stream to remove data not related to a program

6   identified by a packet identifier to produce a filtered video data stream; and

7   storing the filtered video data stream in a solid state memory.

8

9   30.   The method according to claim 29, further comprising encrypting the filtered

10 video data stream before storing the filtered video data stream in the solid state

11 memory.

12

13 31.   The method according to claim 29, further comprising time stamping the

14 filtered video data stream before storing the filtered video data stream in the solid

15 state memory.

16

17 32.   The method according to claim 29, further comprising incrementing a write

18 pointer associated with the memory as the filtered video data stream is stored to

19 the memory.

20

21 33.   The method according to claim 29, wherein the encrypted video data stream

22 is received through a PCMCIA compliant connector.

23

24 34.   The method according to claim 29, wherein the receiving, decrypting, filtering

25 and storing are carried out under instructions from a programmed processor.

26

1   35.   A method, carried out in a PC card recorder, of playback of video

2   programming stored on the PC card recorder, comprising:

3   identifying a packet identifier associated with a program to be played;

4   retrieving a video data stream associated with the packet identifier from a

5   solid state memory;

6   encrypting the video data stream to produce an encrypted video data stream;

7   and

8   sending the encrypted video data stream to a PCMCIA connector.

9

10   36.   The method according to claim 35, further comprising decrypting the video

11   data stream after retrieving and before encrypting and sending.

12

13   37.   The method according to claim 35, wherein the video data stream includes

14   time stamps.

15

16   38.   The method according to claim 37, wherein the encrypted video data stream

17   is sent to the PCMCIA connector at a time determined by the time stamps.

18

19   39.   The method according to claim 35, further comprising incrementing a read

20   pointer associated with the memory as the video data stream is retrieved from the

21   memory.

22

23   40.   The method according to claim 35, wherein the identifying, retrieving,

24   encrypting and sending are carried out under instructions from a programmed

25   processor.

26

27

1   41.   A recording module, comprising:

2   a connector suitable for interconnecting with a conditional access point of

3 deployment module (POD) connector in a receiver;

4   a memory; and

5   circuit means for receiving information through the connector and for storing

6 the information on the memory.

7

8   42.   The apparatus according to claim 41, further comprising a decrypter that

9 receives the information in encrypted form through the connector and decrypts the

10 information to produce a decrypted data stream.

11

12   43.   The apparatus according to claim 42, further comprising means for receiving

13 a smart card within the recording module, the smart card containing information

14 used to generate a decryption key used by the decrypter.

15

16   44.   The apparatus according to claim 42, further comprising:

17   a processor; and

18   a filter, receiving the data stream, and sending a portion of the data stream

19 associated with a packet identifier specified by the processor to the memory for

20 storage.

21

22   45.   The apparatus according to claim 44, further comprising a memory interface,

23 receiving the data stream from the filter, that stores the data stream in the memory.

24

25   46.   The apparatus according to claim 45, further comprising a reference clock

26 that sends timing information to the memory interface for storage with the data

27 stream.

28

29

47.   The apparatus according to claim 41, further comprising:

a processor; and

a filter, receiving the information, and sending a portion of the information associated with a packet identifier specified by the processor to the memory for storage.

48.   The apparatus according to claim 41, further comprising an encrypter that receives data stored in the memory, encrypts the data and sends the data to the connector.

49.   The apparatus according to claim 48, further comprising an encrypter that encrypts the data stream prior to storage in the memory, and a decrypter that decrypts the data retrieved from memory prior to encrypting the data using the encrypter and sending the data to the connector.

50.   The apparatus according to claim 48, further comprising means for receiving a smart card within the module, the smart card containing an encryption key used by the encrypter.

51.   The apparatus according to claim 48, further comprising a memory interface that retrieves the stored data from the memory and sends the retrieved data to the encrypter.

52.   The apparatus according to claim 51, wherein the stored data is retrieved according to a packet identifier associated with the stored data.

53.   The apparatus according to claim 41, wherein the connector comprises a PCMCIA compliant connector.

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54.   The apparatus according to claim 41, further comprising a encrypter that encrypts the data stream prior to storage in the memory.

55.   The apparatus according to claim 41, wherein the memory comprises solid state non-volatile memory.

56.   The apparatus according to claim 41, wherein the information contains video content.

1   57.   A method, comprising:

2   receiving a stream of information through a conditional access point of

3   deployment module (POD) connector in a receiver; and

4   storing at least a portion of the stream of information in a memory.

5

6   58.   The method according to claim 57, wherein the stream of information is

7   encrypted, and further comprising decrypting the stream of information.

8

9   59.   The method according to claim 58, further comprising generating a

10   decryption key, retrieving the information from the memory and decrypting the

11   information using the decryption key.

12

13   60.   The method according to claim 57, further comprising filtering the stream of

14   information to remove information not associated with a specified packet identifier.

15

16   61.   The method according to claim 57, further comprising storing timing

17   information from a reference clock with the stream of information.

18

19   62.   The method according to claim 61, further comprising:

20   retrieving the stored information;

21   sending the retrieved information to an encrypter at a time determined by the

22   time stamp;

23   encrypting the stored information; and

24   transmitting the encrypted information to the receiver through the conditional

25   access point of deployment module (POD) connector.

26

27

63. The method according to claim 57, further comprising:

    retrieving the stored information;

    encrypting the stored information; and

    transmitting the stored information to the receiver through the conditional access point of deployment module (POD) connector.

64. The method according to claim 63, further comprising reading an encryption key from a smart card, and wherein the stream of information is encrypted using the encryption key read from the smart card.

65. The method according to claim 63, wherein the stored information is retrieved according to a packet identifier associated with the stored information.

66. The method according to claim 57, wherein the connector comprises a PCMCIA compliant connector.

67. The method according to claim 58, further comprising encrypting the stream of information prior to storage in the memory.

68. The memory according to claim 57, wherein the memory comprises solid state memory.

69. The apparatus according to claim 58, wherein the memory comprises solid state memory.

70. The method according to claim 57, carried out under control of a programmed processor.

71. The method according to claim 57, wherein the receiver comprises an OpenCable compliant receiver.

1   72.   The method according to claim 57, wherein the receiver is part of a television
2   Set-Top Box.
3
4   73.   The method according to claim 57, wherein the receiver is part of a television
5   receiver.
6
7   74.   The method according to claim 57, wherein the information comprises video
8   information.
9

1   75.   An electronic storage medium, storing instructions which, when executed

2   on a programmed processor, carry out a method of recording video, comprising:

3   receiving stream of video information through a conditional access point of

4   deployment module (POD) connector in a video receiver; and

5   storing at least a portion of the stream of video information in a memory.

6

7

1   76.   A PC card device, comprising:

2   a PCMCIA compliant connector;

3   a decrypter that receives encrypted video data through the connector and

4   decrypts the video data into a video data stream;

5   a memory;

6   a processor;

7   a filter, receiving the video data stream, and sending a portion of the video

8   data stream associated with a packet identifier specified by the processor to the

9   memory for storage; and

10   an encrypter that receives data stored in the memory, encrypts the data and

11   sends the data to the connector, under control of the processor.

12

13   77.   The apparatus according to claim 76, further comprising a memory interface,

14   receiving the video data stream from the filter, that stores the data stream in the

15   memory, and that retrieves the stored data from the memory and sends the

16   retrieved data to the encrypter.

17

18   78.   The apparatus according to claim 77, further comprising a reference clock

19   that sends timing information to the memory interface for storage with the video

20   data stream.

21

22   79.   The apparatus according to claim 77, further comprising means for receiving

23   a smart card, the smart card containing information used to generate a decryption

24   key used by the decrypter and an encryption key used by the encrypter.

25

26

1   80.   A PC card device, comprising:

2   a PCMCIA compliant connector;

3   a first decrypter that receives encrypted video data through the connector

4   and decrypts the video data into a video data stream;

5   a memory;

6   a processor;

7   a second encrypter;

8   a filter, receiving the video data stream, and sending a portion of the video

9   data stream associated with a packet identifier specified by the processor to the

10   second encrypter for encrypting the video data stream to produce an encrypted

11   video data stream;

12   a memory interface for receiving the encrypted video data stream for storage

13   in the memory, and for retrieving the encrypted video data stream from the memory;

14   a second decrypter that decrypts the video data stream retrieved from

15   memory; and

16   a first encrypter that receives video data stream from the second decrypter,

17   encrypts the video data stream and sends the encrypted video data stream to the

18   connector, under control of the processor.

19

20   81.   The apparatus according to claim 80, further comprising a reference clock

21   that sends timing information to the memory interface for storage with the video

22   data stream.

23

24   82.   The apparatus according to claim 80, further comprising means for receiving

25   a smart card, the smart card containing data used to generate a decryption key

26   used by the first decrypter and an encryption key used by the first encrypter.

27

28   83.   The apparatus according to claim 80, wherein the memory comprises solid

29   state non-volatile memory.

1   84.   A video device, comprising:

2   a conditional access point of deployment module (POD) interface for

3   receiving a point of deployment module;

4   a receiver front end unit receiving a signal containing video information and

5   sending a video stream to the POD interface;

6   a circuit card coupled to POD interface and receiving the video stream;

7   a memory residing on the circuit card; and

8   a memory interface residing on the circuit card for storing video content

9   forming a part of the video stream in the memory.

10

11   85.   The apparatus according to claim 84, wherein the video stream is encrypted,

12   and further comprising a decrypter residing on the circuit card that decrypts the

13   encrypted video stream to produce a decrypted video stream.

14

15   86.   The apparatus according to claim 85, further comprising a filter residing on

16   the circuit card that removes information from the decrypted video stream not

17   relevant to the video content to produce a filtered video stream, and wherein the

18   video content comprises the filtered video stream.

19

20   87.   The apparatus according to claim 86, wherein the memory interface also

21   retrieves the stored video content from the memory.

22

23   88.   The apparatus according to claim 87, further comprising an encrypter

24   residing on the circuit card that encrypts the retrieved video content and sends the

25   encrypted video content to the POD interface.

26

89.   The apparatus according to claim 88, further comprising a decrypter that receives the encrypted video content and decrypts the encrypted video content to produce decrypted video content.

90.   The apparatus according to claim 89, further comprising:

    a demultiplexer that receives the decrypted video content and separates the decrypted video content into video and audio components;

    an audio decoder receiving the audio components and converting the audio components into an audio signal output that can be played by a television set; and

    a video decoder receiving the video components and converting the video components into a video signal output that can be played by the television set.

91.   The apparatus according to claim 84, further comprising a reference clock residing on the circuit card that sends timing information to the memory interface for storage in the memory with the video data stream.

92.   The apparatus according to claim 84, further comprising means for receiving a smart card, the smart card containing data used to generate a decryption key used by the decrypter.

93.   The apparatus according to claim 88, further comprising means for receiving a smart card, the smart card containing information used to generate a decryption key used by the decrypter and an encryption key used by the encrypter.

94.   The apparatus according to claim 84, wherein the memory comprises solid state memory.

95.   The apparatus according to claim 84, wherein the memory comprises solid state non-volatile memory.

1   96.   The apparatus according to claim 85, wherein the video device comprises

2   one of a television Set-Top Box and a television set.

1   97.   A video device, comprising:

2   a conditional access point of deployment module (POD) interface for

3   receiving a point of deployment module;

4   a receiver front end unit receiving a signal containing video information and

5   sending a video stream to the POD interface;

6   a circuit card coupled to POD interface and receiving the video stream

7   wherein the video stream is encrypted;

8   a memory residing on the circuit card;

9   a decrypter residing on the circuit card that decrypts the encrypted video

10   stream to produce a decrypted video stream;

11   a filter residing on the circuit card that removes information from the

12   decrypted video stream not relevant to the video content to produce a filtered video

13   stream;

14   a memory interface residing on the circuit card for storing the filtered video

15   stream in the memory, and for retrieving the stored video stream from the memory

16   to obtain a retrieved video stream; and

17   an encrypter residing on the circuit card that encrypts the retrieved video

18   stream and sends the encrypted retrieved video stream to the POD interface.

19

20   98.   The apparatus according to claim 97, further comprising a decrypter that

21   receives the encrypted retrieved video content from the POD interface and decrypts

22   the encrypted retrieved video content to produce decrypted video content.

23

24   99.   The apparatus according to claim 98, further comprising:

25   a demultiplexer that receives the decrypted video content and separates the

26   decrypted video content into video and audio components;

27   an audio decoder receiving the audio components and converting the audio

28   components into an audio signal output that can be played by a television set; and

29   a video decoder receiving the video components and converting the video

30   components into a video signal output that can be played by the television set.

1   100.   The apparatus according to claim 97, further comprising a reference clock

2   residing on the circuit card that sends timing information to the memory interface

3   for storage in the memory with the filtered video data stream.

4

5   101.   The apparatus according to claim 97, further comprising means for receiving

6   a smart card, the smart card containing data used to generate a decryption key

7   used by the decrypter and an encryption key used by the encrypter.

8

9   102.   The apparatus according to claim 97, wherein the memory comprises solid

10   state memory.

11

12   103.   The apparatus according to claim 97, wherein the memory comprises solid

13   state non-volatile memory.

14

15   104.   The apparatus according to claim 97, wherein the video device comprises

16   one of a television Set-Top Box and a television set.

17

105.   A method of operation of a video device, comprising:

sending a video stream to a conditional access point of deployment module (POD) interface;

receiving the video stream at a circuit card coupled to the POD interface; and

storing video content forming a part of the video stream in a memory residing on the circuit card.

106.   The method according to claim 105, wherein the video stream is encrypted, and further comprising decrypting the encrypted video stream to produce a decrypted video stream using a decrypter residing on the circuit card.

107.   The method according to claim 106, further comprising removing information from the decrypted video stream not relevant to the video content to produce a filtered video stream using a filter residing on the circuit card, and wherein the video content comprises the filtered video stream.

108.   The method according to claim 107, further comprising encrypting the retrieved video content using an encrypter residing on the circuit card and sending the encrypted video content to the POD interface.

109.   The method according to claim 108, further comprising receiving the encrypted video content and decrypting the encrypted video content to produce decrypted video content.

110.   The method according to claim 109, further comprising:

separating the decrypted video content into video and audio components;

converting the audio components into an audio signal output that can be played by a television set; and

converting the video components into a video signal output that can be played by the television set.

111. The method according to claim 105, further comprising storing timing information from a reference clock residing on the circuit card in the memory with the video data stream.

112. The method according to claim 106, further comprising obtaining a decryption key for use by the decrypter.

113. The method according to claim 108, further comprising obtaining a decryption key for use by the decrypter and an encryption key for use by the encrypter.

114. The method according to claim 105, wherein the memory comprises solid state memory.

115. The method according to claim 105, wherein the memory comprises solid state non-volatile memory.

116. The method according to claim 105, carried out in one of a television Set-Top Box and a television set.

1   117.   An electronic storage medium storing instructions which, when executed on

2   a programmed processor, carry out a method of operation of a video device,

3   comprising:

4   sending a video stream derived from the video signal to a conditional access

5   point of deployment module (POD) interface;

6   receiving the video stream at a circuit card coupled to the POD interface; and

7   storing video content forming a part of the video stream in a memory residing

8   on the circuit card.

9

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1   118.   A video device, comprising:

2   a first conditional access point of deployment module (POD) interface for

3   receiving a first point of deployment module;

4   a second conditional access point of deployment module (POD) interface

5   for receiving a second point of deployment module; and

6   receiver front end means for receiving a signal containing video information

7   and sending a first video stream to the first POD interface, and a second video

8   stream to the second POD interface.

9

10   119.   The apparatus according to claim 118, further comprising:

11   a first circuit card coupled to the first POD interface and receiving the first

12   video stream;

13   a first memory residing on the first circuit card; and

14   means residing on the first circuit card for storing first video content forming

15   a part of the video stream in the first memory.

16

17   120.   The apparatus according to claim 119, wherein the first video stream is

18   encrypted, and further comprising a first decrypter residing on the first circuit card

19   that decrypts the encrypted first video stream to produce a decrypted first video

20   stream.

21

22   121.   The apparatus according to claim 120, further comprising a first filter residing

23   on the first circuit card that removes information from the decrypted first video

24   stream not relevant to the first video content.

25

26   122.   The apparatus according to claim 118, further comprising means residing

27   on the first circuit card for retrieving the first video content from the first memory and

28   sending the first video content to the first POD interface.

29

123.   The apparatus according to claim 122, further comprising a first encrypter residing on the first circuit card for encrypting the first video content prior to sending the first video content to the first POD interface.

124.   The apparatus according to claim 119, further comprising:
    a second circuit card coupled to the second POD interface and receiving the second video stream;
    a second memory residing on the second circuit card; and
    means residing on the second circuit card for storing second video content forming a part of the video stream in the second memory.

125.   The apparatus according to claim 124, wherein the second video stream is encrypted, and further comprising a second decrypter residing on the second circuit card that decrypts the encrypted second video stream to produce a decrypted second video stream.

126.   The apparatus according to claim 125, further comprising a second filter residing on the second circuit card that removes information from the decrypted second video stream not relevant to the second video content.

127.   The apparatus according to claim 125, further comprising means residing on the second circuit card for retrieving the second video content from the second memory and sending the second video content to the second POD interface.

128.   The apparatus according to claim 127, further comprising a second encrypter residing on the second circuit card for encrypting the second video content prior to sending the second video content to the second POD interface.

1	129. The apparatus according to claim 128, further comprising means residing
2	on the second circuit card for retrieving the second video content from the second
3	memory and sending the second video content to the second POD interface.
4	
5	130. The apparatus according to claim 129, further comprising a second
6	encrypter residing on the second circuit card for encrypting the second video
7	content prior to sending the second video content to the second POD interface.
8	
9	131. The apparatus according to claim 119, further comprising:
10	a second circuit card coupled to the second POD interface and receiving the
11	second video stream;
12	a second memory residing on the second circuit card;
13	means residing on the second circuit card for storing second video content
14	forming a part of the video stream in the second memory; and
15	means residing on the second circuit card for retrieving the second video
16	content from the second memory and sending the second video content to the
17	second POD interface.
18	
19	132. The apparatus according to claim 131, further comprising means for
20	selecting one of the first and second video content from the first and second POD
21	interfaces.
22	
23	133. The apparatus according to claim 132, further comprising a decrypter that
24	receives the selected video content and decrypts the selected video content.
25	
26	134. The apparatus according to claim 118, wherein the video device comprises
27	one of a television Set-Top Box and a television set.

1 135. The apparatus according to claim 133, further comprising:

2 a demultiplexer that receives the decrypted selected video content and

3 separates the decrypted selected video content into video and audio components;

4 an audio decoder receiving the audio components and converting the audio

5 components into an audio signal output that can be played by a television set; and

6 a video decoder receiving the video components and converting the video

7 components into a video signal output that can be played by the television set.

8

9 136. The apparatus according to claim 118, wherein the receiver front end means

10 comprises a first receiver front end and a second receiver front end.

11

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1   137.   A method of recording a digital video signal, comprising:

2   receiving a digitally encoded video signal, the signal having pictures encoded

3   as groups of pictures with the groups of pictures having intra-coded pictures, and

4   inter-coded pictures;

5   storing the digitally encoded video signal to an addressable storage device;

6   and

7   storing in a table a starting address and an ending address for each intra-

8   coded picture.

9

10

1   138.   A method of retrieving a digitally encoded video signal stored in an
2   addressable electronic storage device, the signal having pictures encoded as
3   groups of pictures with the groups of pictures having intra-coded pictures, and inter-
4   coded pictures, the method comprising:
5   for each of a plurality of intra-coded pictures:
6   looking up a starting address in a table for an intra-coded picture;
7   looking up an ending address in the table for the intra-coded picture;
8   and
9   retrieving the intra-coded picture from the addressable storage device.
10
11   139.   The method according to claim 138, displaying the retrieved intra-coded
12   pictures on a display.
13
14

1   140. A method of recording a digital video signal, comprising:

2   receiving a digitally encoded video signal, the signal having pictures encoded

3   as groups of pictures with the groups of pictures having intra-coded pictures, and

4   inter-coded pictures;

5   determining which of the pictures are intra-coded pictures;

6   storing the digitally encoded video signal to a storage device; and

7   storing in a header associated with each intra-coded picture with an identifier

8   identifying the picture to be an intra-coded picture.

9

10   141. The method according to claim 140, wherein the header contains an

11   indicator of a starting point for an intra-coded picture.

12

13   142. The method according to claim 140, wherein the header contains an

14   indicator of an ending point for an intra-coded picture.

1   143.   A method of retrieving a digitally encoded video signal stored in an electronic
2   storage device, the signal having pictures encoded as groups of pictures with the
3   groups of pictures having intra-coded pictures, and inter-coded pictures, the
4   method comprising:
5   for each of a plurality of pictures:
6   reading a header associated with each picture;
7   determining from an identifier in the header whether the picture is an
8   intra-coded picture; and
9   if so, retrieving the intra-coded picture.
10
11   144.   The method according to claim 143, displaying the retrieved intra-coded
12   pictures on a display.

1   145.   A method of providing pairing security in a PC card recorder, comprising:

2   at the PC card recorder, receiving an identifier from a host device;

3   storing the identifier in the PC card recorder;

4   receiving a digital video signal from the host device; and

5   storing the digital video signal in a memory of the PC card recorder.

6

1   146.   A method of providing pairing security in a PC card recorder, comprising:

2   receiving a request to play a stored digital video signal;

3   at the PC card recorder, retrieving a stored host device identifier from a

4   memory;

5   at the PC card recorder, receiving an identifier from the host device;

6   at the PC card recorder, comparing the identifier with the stored identifier;

7   and

8   playing the stored digital video signal from a memory of the PC card recorder

9   if the identifier and the stored identifier match.

10

11   147.   The method according to claim 146, further comprising rejecting the request

12   to play in the event the identifier and the stored identifier do not match.

13

1   148.   A method of recording a television program, comprising:

2   receiving a command signal from a remote commander to record a selected

3   television program;

4   at a host processor, determining a packet identifier corresponding to the

5   selected television program;

6   sending the packet identifier along with a record command to a POD

7   interface;

8   at a PC card recorder;

9   receiving a transport stream from the POD interface;

10   receiving the packet identifier and the record command from the POD

11   interface;

12   instructing a transport stream filter to delete packets not associated

13   with the packet identifier; and

14   recording the packets associated with the packet identifier to a

15   memory.

16

1   149. A method of recording a television program at a PC card recorder,

2   comprising:

3   receiving a transport stream from a POD interface;

4   receiving the packet identifier and the record command from the POD

5   interface;

6   instructing a transport stream filter to delete packets not associated with the

7   packet identifier; and

8   recording the packets associated with the packet identifier to the PC card

9   recorder connected to the POD interface.

10

11

1   150. A method of storing information from an MPEG transport stream,
2   comprising:
3   receiving a picture from the MPEG transport stream;
4   determining a type associated with the picture; and
5   storing a type indicator along with the picture in a memory.
6
7   151. The method according to claim 150, wherein the type indicator is stored in
8   a table.
9
10   152. The method according to claim 151, wherein the type indicator is stored in
11   the table along with a starting address for the packet.
12
13   153. The method according to claim 150, wherein the type indicator is stored in
14   a packet header.